Before the

FEDERAL COMMUNICATIONS COMMISSION

Washington, D.C. 20554

In the Matter of	)	
Migratory Bird Collisions With Communications Towers	)	WT Docket 03-187
	)	DA 04-3891

To: The Commission

REPLY COMMENTS OF CENTERPOINTE COMMUNICATONS, L.L.C. TO THE AVATAR ENVIRONMENTAL, L.L.C's REPORT

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Summary

The Commission's efforts to compile the available science in the area of avian collisions with communications towers has been met by a myriad of comments that spend little time examining the efforts of the Avatar Report as a scientific examination and more time emphasizing the commenting parties' legal positions. With that in mind, Centerpointe avers that whatever other standards exist, the burden of proof in this proceeding is upon those persons who seek to restrict the deployment of wireless infrastructure and the attendant technologies, and that burden has not been met.

Centerpointe shows that the ABC Comments and the LPP Report are both based on false premises, skewed statistics, and unsupported conclusions. In their otherwise laudable zeal to protect avian species, ABC has concocted an attack on the Avatar Report and the Commission that is fully without merit and attempts to disguise obvious advocacy as science. However, ABC's failure to demonstrate any scientific basis for restrictive action does show the agency that there is no evidentiary foundation for adoption of policy or rule.

To further emphasize the lack of evidence that communications towers present any adverse, biologically significant impact on avian populations, Centerpointe includes herewith population data of relevant species which shows that despite ABC's claims, the population of many neotropical migrants have increased over the past 20 years. Thus, the population data for these species belies much of the rhetoric employed by ABC and others.

Finally, Centerpointe has attached its study of threatened and endangered species included on the Audubon Watch List, which study demonstrates again that those species would not benefit noticeably, measurably, or, perhaps, at all, by the adoption of any restrictions on the construction and operation of communications towers.

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The issues arising from this proceeding fall into two distinct categories, those comments which seek to address the Commission's authority and obligations under law, i.e. NEPA, ESA, APA, etc.; and those comments that focus on the science underlying the factual basis for any future policy decision. That the legal obligations of the agency require a factual foundation for reasoned decision making is axiomatic and mandated by the Administrative Procedures Act. However, it is equally important to note that this stage of the comments was intended to solicit comments on the Avatar Report, which report does not reach the legal issues underlying this proceeding. Accordingly, Centerpointe has attempted throughout this stage to focus on the scientific evidence presented and to augment that effort by reviewing carefully the information available on those species which are feared threatened by the introduction of communications towers into the environment.

Centerpointe understands the temptation for commenters to drift into areas of legality and, indeed, there is no line between the science and known facts and the application of that evidence to the questions regarding the creation of Commission policy in this area. However, Centerpointe believes it imprudent for commenters to suggest extreme positions that do little to assist the agency in defining its role. That the Commission demonstrates interest in a given area is not an improper

exercise of authority. Indeed, it is prudent for the agency to consider the issue of avian mortality. An expression of interest and an invitation for the public to comment on a given issue is not, in itself, an exercise of authority that can be easily faulted. Nor is it, as the American Bird Conservancy would have it, an obligation which must necessarily lead to the creation of rules or policies. In fact, this is the rubicon which is under scrutiny, but which the law states must not be crossed without convincing facts and justification, including the authority to take those additional steps. Unfortunately for the American Bird Conservancy, the Commission requires more than evidence of avian mortality, otherwise the death of a single crow due to collision would be deemed sufficient justification for adoption of law that would add untold billions to the cost of deployment of the United States' wireless infrastructure.

What the American Bird Conservancy fails to grasp or knowingly ignores is that the plight of the birds must be balanced carefully against the duties of the Commission. Further, any policy or rule considered by the Commission must be shown to have some credible opportunity for measurable amelioration or potential elimination the alleged problem. And finally, the cost to the public in making demonstrably more expensive the deployment of wireless systems and, in some cases, potentially limiting severely such deployment, due to the adoption of any restrictive policy; must be considered in comparison to the relative good to be gained by adoption of policies for which little definitive evidence exists.

The Burden of Proof And Introduction of Credible Evidence

Underlying the issues is the quality of proof required by the agency to accept the factual assertions of commenting parties. This element of the controversy is sharpened by the Data Quality Act cited by CTIA's Comments pg. 10, wherein CTIA states that the quality of the data submitted by the environmental groups, such as the American Bird Conservancy ("ABC")[1], do not meet the standards created under the DQA. CTIA's Comments focus on the connection between adoption of future construction criteria and dissemination of data as an implicit portion of any such adoption. Although there is merit in CTIA's contentions, it does not fully reach the truer, established test of whether an agency is acting in accord with law when it accepts as fact the assertions of commenting parties, i.e. whether there exists sufficiently credible evidence to guide the agency toward a given decision which does not result in an arbitrary or capricious outcome. The case law is mixed in the area of what the quality of such evidence should be, however, the courts have generally given deference to an agency when it is acting within the scope of its mandate and historically recognized expertise. The courts tend to provide greater scrutiny to actions taken by an agency when they appear outside of the agency's primary area of expertise. Respectfully, it must be concluded that the relevant area of this inquiry falls into the latter category. It is, therefore, entirely appropriate for the Commission to examine carefully the comments received and to withhold any ruling until and unless it is fully satisfied of the merits of any evidence that underlies a commenting party's assertions.

[1] Herein, "ABC Comments"shall refer to those comments submitted by the American Bird Conservancy, Forest Conservation Council, Humane Society of the United States, and Defenders of Wildlife.

For the Commission to create lawful policies or standards for future construction and approval of communications towers in reflection upon the issue of avian mortality, supporters of such standards must meet a three-prong test. First, supporters must show that a factual foundation exists to find that avian mortality by collisions with communications towers is biologically significant. The second prong is whether legally protected avian species are suffering biologically significant mortality rates from collisions with communications towers. And the third prong is whether the science is sufficient to demonstrate that a particular configuration of future towers would reduce avian mortality among protected species.

That supporters of new standards bear the burden of meeting the three-prong test is not an arbitrary assertion. Supporters are demanding that the agency act to restrict the means of delivering telecommunications services to the public. Since the supporters' demand is, by its very nature, contrary to the primary objectives of the agency, the burden must fall on those that seek to restrain the agency's ability to use all reasonable means to make available the radio spectrum in the public interest, citing an alleged greater public interest in the preservation of legally protected species of birds.

The ABC Comments are an obvious attempt to shift the burden of proof onto the agency. In effect, the ABC Comments state that the Commission must fully justify its taking no action at this time, otherwise some action is required. The ABC Comments are an obvious misstatement of the law and the obligations of a government agency. Case law does not support agency action based on lack of contrary evidence. Rather, the applicable law requires that an agency have solid evidentiary

footing for the imposition of restrictions and additional costs on regulatees, particularly small business regulatees. The Commission is fully cognizant of its duties under the APA, Regulatory Flexibility Act and other legislation that belies the ABC Comments' approach. It may, then, dismiss entirely any effort by supporters of restrictions to shift improperly the burden from the supporters onto the Commission.[2]

This stated, the Commission's examination of the data available is not an easy task. Even the anecdotal data demonstrates that avian mortality exists by birds' collisions with manmade objects, such as towers, windows, buildings, utility wires, etc. Indeed, no commenting party has suggested otherwise. Further, the data shows that among the avian mortality suffered, some protected species have upon occasion been killed. However, these two accepted facts fall far short of creating an obligation in the agency to create policy regarding future construction. Despite the often shrill protests contained within the ABC Comments, the Commission must look beyond these facts and not make a factually unsupported leap to the conclusion that some avian mortality equals biologically significant mortality. Nor should the Commission take the even greater leap that any proposed configuration of towers will result in measurable, much less noticeable, increases in protected species' populations. The Avatar Report pointed out again and again that there is simply insufficient evidence to demonstrate that avian mortality from collisions with communications

[2] The Commission should similarly dismiss the ABC Comments that criticize the Commission for restricting the Avatar Report to an examination of the science presented in this proceeding, rather than allowing the Avatar Report to drift into a discussion of law. The agency would be improperly delegating its authority if it commissioned an expert environmental firm to tell the agency what its legal obligations might be. That task is within the exclusive jurisdiction of the agency.

towers is biologically significant or that any suggested, future configuration of towers will reduce the incidents of such mortality.

It was with some amazement, therefore, that the Avatar Report advocated any action beyond additional study. As commenting parties aptly noted, it is wholly inconsistent for the Avatar Report to suggest any future policy or action, beyond additional gathering of data, when the same report repeatedly states that the evidence presented within the comments and cited studies is wholly anecdotal and lacks any scientific basis for making conclusions regarding the effect on protected species of birds by collisions with communications towers.

The ABC Comments

As a reaction to the determinations made within the Avatar Report, that the evidence simply is insufficient for the basis of making policy at this time, the ABC Comments contain a litany of denials that the evidence is insufficient. The ABC Comments state repeatedly that the evidence shows a clear biological threat to protected avian species from tower operations. It further contends that the evidence is sufficient to create policy for future restrictions on tower construction. However, in making its claims, the ABC Comments offer little more than the evidence which was examined previously by Avatar. Instead of developing additional data and evidence, the ABC Comments rely on a new report produced for them and authored by Land Protection Partners ("the LPP Report"). The LPP Report is not an introduction of new data, but rather an allegedly learned attack on the Avatar Report and its conclusions. And since the LPP Report does not rely on new data (likely due

to the unavailability of new, reliable information) it is necessarily deficient in support of its conclusions.

The LPP Report finds fault with Avatar's alleged ignoring of a letter from the Chairman of the USFWS that bird kills from tower collision may equal 40 million annually. LPP Report at 2. The LPP Report seeks to embrace the higher mortality rate to justify its position of biological significance in avian mortality. And although it reaches for this goal, it concurrently states, "[a]ssessment of the cumulative significance of tower-caused avian mortality is confounded by the absence of monitoring at a large number of towers." Id. In short, the LPP Report is confirming what the Avatar Report stated, that the number of bird kills is unknown, under-reported, scientifically impossible to predict with accuracy, and not subject to any conclusion based on an arbitrary number asserted in a letter by the USFWS Chairman, the source of such number being fully unknown. Whereas the Avatar Report properly refused to interpolate the anecdotal data available to achieve a questionable estimation of bird deaths, the LPP Report pushes on despite this lacuna of necessary evidence and logic, by simply allowing to itself that there are exponentially more avian kills than are reported. Accordingly, the LPP Report is based, in large measure, on the lack of evidence rather than the existence of evidence.

As a means of bridging the gap between the anecdotal information and the actual, gathered, empirical data, the LPP Report states the conclusion that "[w]e do know that communications towers kill millions of birds annually and that a high percentage of these are neotropical birds that migrate

at night."[3] With all due respect to LPP and the cited studies, the truth is that we do not know either of these facts to be true. There are general estimations of bird kills by collisions with towers which vary greatly among commenting parties and none of which are based on actual bird counts which equal one million for any year. And since we do not know the annual number of bird kills caused by collisions with towers, we do not know what percentage of those kills are represented by neotropical migrants. The LPP Report is, therefore, based on supposition borne from anecdotal information which is interpolated into numbers that equal a best guess that is shared among persons who support restrictions on towers. This is not science. It is advocacy and, frankly, poor advocacy at that.[4]

The LPP Report relies extensively on this approach when attempting to address the issue of biological significance. LPP Report at 3-11. The LPP Report attempts to state, in effect, that if an incident of avian mortality happened at one tower, it will happen at all towers. And, if a species of bird suffered mortality one year, it will suffer it each year. This "one equals many" approach that is laid down with mathematical exercises is without any scientific or logical foundation. It demonstrates again the lack of credible data upon which the ABC Comments are based. Faced with

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[3] The only direct information offered by a commenting party regarding neotropical migrants is found in Centerpointe's early comments addressing the threats to those subspecies of Vireos which migrate to the United States. That Vireo study demonstrates clearly that LPP claims regarding threats to neotropical migrants are, at best, highly inflated and perhaps, simply false. *See*, population data for Vireos discussed *supra*.

[4] The sophistry continues in the ABC Comments which state without any factual or logical basis that "perhaps 90% to 94% are neotropical." ABC Comments at 7. The ABC Comments provide no factual basis or evidence in support of this ginned up conclusion because none exists.

too little data upon which to draw its conclusions, the ABC Comments are rely on the "one equals many" approach because it allows conclusions about entire species based on the death of, say, a single Kirtland Warbler. What the ABC Comments do not point out is that due to appropriate conservation efforts, the population of the Kirtland Warbler has been increasing. That the species' population is increasing despite the claimed threat posed by communications towers is telling. But what is more telling is that ABC and LPP fail to point this out in their comments. In fact, given the nature of the entities which signed off on the ABC Comments, it is curious that these entities have failed to address the nature of the species that they purport to protect. The reason for that is apparent when one examines the actual nature of those species which are considered endangered or threatened. A close examination proves that the existence of towers is simply insignificant to those species.

Putting aside for now this obvious failure to express any information related specifically to individual species, one is struck by the wholly improper manner upon which LPP performed its math illustrated in its Table 1. The mathematical conclusions contained therein are based on bird counts contained in the ABC's compilation of 47 studies with lists of bird killed at communications towers. What the LPP Report does not point out is that the studies equal a 50-year, sporadic, collection of data and, instead, the LPP Report treats the data as though it were all collected in a single year. Accordingly, if one were to apply as pedantic an approach to the data as the LPP Report, one would take all of the mathematical conclusions presented by the LPP Report *and divide by 50.* Unfortunately, even if one to apply this necessary adjustment to the data, it still would not render the resulting conclusions correct, only slightly more appropriate.

At Table 1, the "one equals many" approach is shown at its worst. The Table 1 approach states, in effect, that if X number of birds of a species were reported killed at some time over the past 50 years, then that number is constant and represents a known percentage of all avian mortality. Neither presumption is even nearly correct. Adverse weather patterns are believed to create conditions which might result in collisions. Thus, if the Ovenbird is traveling in good weather, it may experience very low collision rates versus other times. But Table 1 does not reflect this. It presumes a constant rate of collision and nothing in the evidence produced in this proceeding even suggests that such constants exist even at a single tower, much less over the universe of towers. In fact, all evidence produced by all sources suggest that the number and types of birds that may suffer collision is fully unknown as are the specific causes therefor.

Stated simply, the methods exhibited in the LPP Report are, at best, blatant advocacy and, at worse, a patently obvious attempt to manipulate numbers in a manner which is so disingenuous as to raise understandable doubt about the lengths to which the ABC might go in pillorying the Commission's honest efforts within this proceeding. In sum, nothing contained in the LPP Report which relies, even in some small way, on this statistical shell game is even remotely credible and should be summarily dismissed. It is nearly tragic that the LPP Report would attempt to discredit the honest, neutral efforts of the Avatar Report by resorting to this form of patent trickery disguised as science.

The statistical house of cards is used time and again in the LPP Report. In its efforts to address avian mortality during migration, the LPP Report at p. 8, repeatedly refers to its

mathematical conclusions at Table 1. Not content with pointing out that some of the scientific literature states that migrating birds are more likely to perish during the arduous trek that makes up migration, the LPP Report attempts to quantify the affect on a given species by relying on its bogus math. One needs only to review the improper use of the Table 1 data as it appears at Table 2, to see the direction of the LPP Report. Under that column entitled "Estimated Tower Kill Per Year" we find again the results of this foolishness and it is this column of data from which one is to draw the conclusion that Regional Conservation Goals are being undermined by the existence of towers. LPP Report at p. 9. In fact, no such conclusion is possible or appropriate for any reason.

For further illustration of the specious nature of the LPP Report, the Commission might wish to examine the following quotes from page 10 of the LPP Report. "Discovery of any one specimen of an endangered species at a communications tower would be an indicator of a significant impact on the population of the species." Again, the discovery of a single Kirtland Warbler is employed for scientifically ridiculous speculation. One bird could have been affected by a wind gust which caused it to veer into a tower. If the tower had been substituted for a building, a telephone pole, or a cliff, the outcome may have been the same. To interpret the death of a single bird as indicative of any threat to an entire species is absurd. But the LPP Report does not suggest that happenstance is even possible. Instead, it concludes that additional Kirtland Warblers have not been found because their population is low and that monitoring has produced insufficient information. The fact is that among a rising population of Kirtland Warblers, a single bird is believed to have died as a result of a collision with a communications tower. One bird among an annual population of 2,000 is the totality of the empirical data gathered over the past 50 years. If one were calculating using the total

population of Kirtland Warblers that have existed over the past 50-year period, the true data shows 1 bird affected among a rising population of nearly 50,000 Kirtland Warblers. The LPP Report equals this absurd approach in its discussion of the Red-Cockaded Woodpecker, turning the death of two birds into an epidemic by mathematical slight of hand. In fact, that data shows 2 birds killed among a population of nearly 300,000 over the last 50 years.

As shown above, there is no scientific or mathematical basis for the LPP Report's conclusion "that the magnitude of mortality of individual species of birds at communications towers constitutes a significant impact, alone and cumulatively, within the understanding of NEPA." LPP Report at 10-11 (note, the LPP Report does not define what is meant by "the understanding of NEPA"). For the LPP Report to have made such a conclusion, it would have to be based on data that is not contained in the LPP Report, because the data therein is horribly skewed and based on false premises.

It is just this type of pseudo-science that the Commission tried to avoid in its commissioning of the Avatar Report. Despite the Commission's good faith efforts, it has again been treated to "damned statistics" that have no basis in logic and which are constructed on false premises for the purpose of advocacy, not objective reporting of facts. That the ABC Comments rely on the LPP Report undermines entirely the ABC position.

Centerpointe respectfully notes that the ABC Comments improperly seek to move the bar farther and farther toward an absolute position of protection of all birds without regard to cost to the American public. It references repeatedly species that are "of concern" without regard to the total

population of those species or the known threats to those species. To simply quote the statutory language at Title 16 does little, if anything, to move forward the discussion. ABC Comments at 6. If the species "of concern" are declining due to known causes unrelated to tower construction, the raising of a tower-related specter is without factual or logical connection. For example, if a species is declining due to the introduction of new predators to its habitat and, thus, has become "of concern", this condition is wholly unrelated to the issue before the Commission. Limitations on tower construction will not remedy, for example, the destruction of a species caused by the combined appetites of feral cats. Accordingly, it is insufficient for one to expand this discussion to include all non-game birds of concern unless the basis of that concern is an established threat to that species from collisions with communications towers.

The ABC Comments Ignore The Birds

The most incredible aspect of the ABC Comments is not what is included in the screed against the agency. Nor are the disappointing contents of the LPP Report shocking. Instead, the LPP Report is merely transparent advocacy posing as science. What is most surprising is that the ABC Comments never reach the birds themselves. The Commission might wonder why this obvious failure to provide information is evinced in the ABC Comments and the LPP Report. Given its wealth of information regarding specific species and the threats to each's population, one might reasonably expect that ABC would provide necessary insight and data to support its broad claims and repeated demands for restrictive policies. However, the ABC Comments are notably silent regarding specific species and known threats to those species.

Centerpointe avers that the reason why the ABC Comments are long on highly questionable law and short on facts is because the facts, once revealed, demonstrate clearly that among the over 100 species of endangered and threatened birds, only six species are even known to have problems with collisions with manmade objects as an even notable threat to their populations. And in each instance of such threat, other threats caused by numerous other sources are deemed of such greater significance, that death by collision is mentioned as a nearly meaningless aside.

Attached hereto and incorporated herein is an overview of the literature provided within the Audubon Watch data regarding all birds which are deemed endangered or significantly threatened. Some of these birds also show up in the data submitted in ABC Comments and, therefore, provide to the Commission the ability to peer beyond ABC's improper use of these species in support of its position. For, as the Commission will quickly see, the birds included on the list do not suffer significant threats from communications towers. The fate of their populations does not hinge on whether towers are guyed or not. And as the ABC is a contributor to this data, one can only conclude that the ABC is either being less than forthcoming with the Commission or it is withholding information from the Audubon Watch effort. The former conclusion is most likely.

In an abundance of fairness, Centerpointe does not question the motives of the ABC. The ABC Comments demonstrate a sincerity in the represented groups' laudable desire to protect all avian species. Unfortunately, the good motives of the ABC Comments do not excuse the self-imposed blinders donned by the groups in forwarding their agenda. Nor does it assist the Commission in examining the issue. The Commission requested comments regarding the Avatar

Report, which necessarily attempts to determine whether there exists a known, biologically significant threat to protected species of birds from the construction and operation of communications towers. The ABC Comments begin with the unsupported conclusion that such biologically significant threat exists and *only then* does it move backward down a path in an attempt to prove its conclusive premise. The path illogically stops short of any examination of the species of concern and no reason is given for this obviously truncated analysis. It is necessary, for ABC to meet its burden of proof, for it to show that the rules it demands will, if adopted, result in a cognizable remedy to the species of concern. The only means by which ABC might have met that burden is to present an examination of the species themselves. It did not.

Among those species highlighted in the earlier ABC Comments "List of Species Killed at Towers Documented by 47 Studies. Listed by Number Killed, in Descending Order"[5] there are a significant number which are ground nesters, which species are in general decline for reasons wholly unrelated to towers. ABC might have mentioned that bird species which nest upon the ground have been in decline for the reasons reported by the Grassland Bird Guild regarding the decline in population of the Eastern Meadowlark, Common Ground Dove, Loggerhead Shrike, Grasshopper Sparrow and the Field Sparrow, all of which appear on the aforementioned ABC list. The Grassland Bird Guild states what might be obvious to anyone considering possible threats to ground nesting species, i.e. haying, mowing, urban sprawl, and "excess predation by cats, raccoons, and other abundant predators." But if the ABC Comments provided this information to the Commission, it would be apparent that the presence of communications towers is not a significant, much less

[5] The same studies relied upon in the LPP Report.

mentioned, source of distress for these species. Indeed, no where in the Grassland Bird Guild report is there any mention of collision with any manmade object by these species.

The illustration above demonstrates clearly that there are relevant facts which ABC either did not wish for the Commission to consider or which the ABC Comments themselves intend to gloss over. In setting government priorities of actions which might, sometimes, under specific circumstances, assist in sustaining populations of bird species, the reconfiguration or limitation on tower building is so far down the list of logical steps which could, maybe have a barely noticeable effect on avian population trends; that such policies are highly unlikely to produce any positive effect on the long term viability of any species. No other conclusion is possible following even a cursory examination of the available data. Certainly no contrary conclusion can be supported by available data and the burden to demonstrate that any policy taken by the Commission to limit tower construction remains upon the proponents of such policies.

To provide a full record upon which the Commission might consider its future actions, Centerpointe attaches hereto its newest study of protected and threatened species for the Commission's examination. Although such information might have been provided via the ABC Comments, it was not. But it should have been if what ABC wanted was reasoned decision making by the agency. It does not. It wants the agency to trust blindly the anecdotal, statistical data and ABC's misuse of that data to arrive at unsupported conclusions. Centerpointe deems that the Commission's good faith effort should be met in kind and, therefore, this information is gathered and submitted for the Commission's unbiased examination.

Population Trend Data

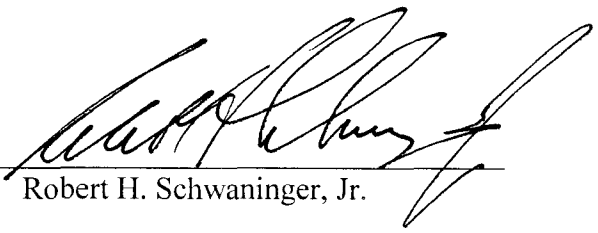
Perhaps the most significant data missing in the ABC Comments and the LPP Report is the population trend data for relevant species of birds. Obviously if population trends are up over the last 20 years for relevant species of birds, then this fact would belie any conclusion that tower construction is biologically and adversely significant. As noted above, the population trend of the Kirtland Warbler is up, so this fact suggests that towers are not biologically significant. But if that were the only species enjoying increased numbers, that fact would too be anecdotal. However, the Kirtland Warbler is not alone in its increased population. According to the USGS, North American Breeding Survey Trend Results, many species of birds have increasing populations recorded between 1982-2002, including the following species mentioned in the ABC Comments and its aforementioned List: American Black Duck; Common Ground Dove; nine species of Vireos, including the Red-Eyed Vireo which is repeatedly mentioned as allegedly susceptible to collisions; fifteen species of Warblers, even though ABC has constantly state that Warblers are threatened by continued tower construction; and the Ovenbird, even though the LPP Report suggests mass destruction of this species by tower collisions. Stated simply, if the LPP Report and the ABC Comments were correct in their conclusions, these population trends should all be consistently downward. They are not. During the most intense period of tower building in the history of the United States, all of these species increased in number. Since the population of birds, including neotropical migrants, has increased during this twenty year period, the Commission must come to the obvious conclusion that tower construction is simply not an adverse, biologically significant occurrence in the environment and perpetuation of migratory birds. The USGS data does not support any other conclusion.

Conclusion

Centerpointe notes the laudable underlying motives, to protect birds, of those persons who support restrictive policies on the construction of communications towers. However, the Commission cannot make policies based on even laudable goals when such policies cannot be supported by facts, logic, or science. Nor can the Commission impose restrictive limitations on the deployment of wireless technology when there exists no evidence that such policies will result in any notable or measurable improvement in bird populations. And, most certainly, the Commission cannot retroactively impose such restrictions on existing structures. In sum, the high burden of proof that supporters of greater restrictions need to meet in this proceeding, has not been met; and a greater examination of the evidence demonstrates clearly that such burden will not be met, if ever, in the foreseeable future.

Respectfully submitted,

CENTERPOINTE COMMUNICATIONS, L.L.C.

By 
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Study Of Endangered/Threatened Birds
To Determine Effectiveness Of Proposed
Recommendations Regarding The Construction
And Operation Of Communications Towers

1.0 Introduction:

An underlying issue to the Commission's inquiry into whether policy should be adopted regarding the construction and operation of communications towers includes the effect that avian collisions with communications towers may have on endangered or threatened species of birds. Although the agency may be generally concerned with all avian mortality from collision, the priorities of government do not allow for the elimination of all potential for avian mortality from collision by the elimination of all communications towers. Such a mandate would remove the beneficial effect on the operation of public safety radio, wireless local exchange, wireless data applications, and a host of other benefits arising from emerging technologies' contribution to the quality of Americans' lives. Therefore, without the alternative to eliminate communications towers or to halt further construction of towers, the Commission has turned its attention to suggestions from environmental groups that communications towers might be "managed" in some manner to reduce the threat of avian collision. As stated repeatedly in the recently published work of Avatar Environmental, LLC, EDM International, Inc. and Pandion Systems, Inc. (collectively referred to herein as "Avatar") for the purpose of compiling, assessing and addressing those comments received in response to its *Notice of Inquiry regarding Effects of Communications Towers on Migratory Birds*, FCC 03-205 (August 20, 2003), there is presently insufficient data to create any management policy that would be assured of being effective. Indeed, the United States Fish and Wildlife Service (USFWS), despite suggesting voluntary tower management guidelines, admits that it lacks sufficient data to deny approval of the construction of any structure due to threatened avian collisions because USFWS lacks any reliable data which would demonstrate that any specific proposed structure will, in fact, result in harm to birds.

Although one can appreciate the laudable goal associated with any effort to balance the needs of man with the needs of nature, appropriate management techniques and policies must reflect a scientific approach to resolution of any competition between these needs. The majority of the effort to date has focused on the structures and what, if any, action might be taken to configure or reconfigure communications towers to reduce incidents of avian collision. However, it is apparent that less effort has been spent in studying the other side of the collision equation, the birds themselves. Examination of the occurrence of a home run by collision of a swung bat with a pitched ball would not be scientifically valid without at least an examination of both ball and bat. This study, therefore, attempts to provide some observations to the other prominent element in the phenomenon of avian collisions, by focusing on the birds.

1.1 Universe of Birds:

The efforts by the Commission have focused, in the main, on migratory birds and usually on nocturnal migratory birds. The theory that underlies this narrowing of concern

is that these birds are most vulnerable to mortality by collision with communications towers. Much anecdotal evidence supports the idea that nocturnal migratory birds are at risk, see, Table 3-1 of Avatar Report. However, other data available from government sources demonstrates that the United States government does not seek to protect all migratory birds. The USFWS's data regarding the harvesting of waterfowl as gamebirds shows that it provides oversight and encouragement to the harvesting of over 15 million migratory ducks and geese each year. Since this amount far exceeds the number of birds which are estimated to be killed by collision with towers (usually in the 4 million range), it would be contradictory for one to state that the U.S. government is concerned or places a high priority on the strict conservation of all migratory bird species.

Additionally, there appears to be less concern with non-migrating species of birds. Although the comments to this proceeding have not illuminated fully why non-migratory species are of unequal concern in this proceeding, logic would point to the fact that a non-migratory species is less likely to be involved in night flying, over long stretches of terrain, which may exhibit inclement weather that might contribute to the incidents of collisions. One would further expect that localized birds would quickly adapt to any changes in their immediate environment, including the construction of a communications tower, and would be able to avoid collision with the object.

Accordingly, the true focus of the efforts within this proceeding must then be characterized as an inquiry into whether avian collisions by species of birds that are of conservancy concerns might be reduced. This focus is appropriate as there is no method of avoiding all birds, all migration patterns, adjusted for all species, over the entirety of the United States, without simultaneously eliminating future construction of radio towers. Nor is there any indication that the U.S. government is seeking to protect all birds as is evidence by the USDA's intentional killing of over one million starlings in 2003. The abundance of starlings so outweighs the public benefit of population reduction, that one could logically presume that if avian collisions with communications towers only resulted from starling behavior, the entire effort would likely be abandoned.

1.2 Biological Significance

The narrowing of this proceeding's focus for the purpose of this study is not to suggest that all unnecessary avian mortality should not be of some concern. Certainly responsible persons should look for ways to avoid man's intrusion on nature to the extent possible for the purpose of preserving the benefits of nature. However, this general and laudable concern with the safety of birds cannot be employed to set a practical agenda of government priorities. Some birds, like cowbirds, can greatly reduce the number of other bird species, thus controlling the population of cowbirds through trapping or elimination of some sort is found to produce a greater good by assisting other species to repopulate and flourish. And if one again attempts to save the universe of birds by altering tower development, the result would be disastrous for the tower industry and all technologies and persons which depend on the continued existence and operation of these necessary structures.

Within the NOI and the Avatar Report, the issue of biological significance was inevitably raised. Commenters provided conflicting conclusions regarding whether the number of avian deaths by collisions with communications towers was significant. Avatar's

Report did not resolve this dispute but did a fine job of showing that this question underscored the other factors explored. The Avatar Report did, however, suggest that significance may be tied to whether the various bird species that were involved in collisions with towers were limited in population, i.e. endangered or threatened. Avatar reported that environmental groups and the USFWS pointed to the results of anecdotal data showing that some endangered bird species were included in the recorded kills, and that this standing alone would tilt the scale toward a finding of biological significance. We disagree.

The death of a single Kirtland Warbler is insufficient impetus for adoption of government policy. It may be viewed as tragic, however, it would be an inappropriate application of government resources to reconfigure the entirety of the communications tower industry based on an unfortunate collision with a tower by one bird. Conversely, it would be irresponsible for concerned persons not to examine the potential effect on endangered species of birds by the construction of communications towers. And although much has been stated in this proceeding, usually in quite general terms, about the threat to avian populations, commenters have not offered specific information about endangered bird species to ascertain whether available evidence points to tower construction as an adversely biologically significant event.

This study is, therefore, offered to this proceeding as an overview of those birds that are endangered or highly threatened to determine what, if any, biological significance might be found to each such species by the construction of communications towers. The focus of this study is to examine more thoroughly each species' habitat, range, and mannerisms, and to apply that information to the Commission's efforts in determining whether these species are likely suffering adversely and significantly by the continued construction and operation of communications towers. Only by a more careful examination of each species, or groups of species, can the Commission's record receive vital scientific information for the purpose of assessing the level of threat to birds from communications towers, particularly among the subgroup of endangered and threatened birds.

2.0 The Audubon Watch List

Often cited by commenting parties in this proceeding, the Audubon Watch List provides data on all species of birds that are endangered or substantially threatened and which birds are present within the geographical region which includes the jurisdiction of the Federal Communications Commission. Since the author of this study is neither a scientist nor an ornithologist, the information provided herein is a compilation of data extracted from the Audubon Society, specifically found within its literature regarding birds that appear on its Watch List. Although the data is often grouped and interpreted herein, special care has been taken to avoid improper extrapolation of data into conclusions that are not fully supported by the underlying literature.

The Audubon Watch List is "a synthesis of species assessments" which is compiled and offered for public use and inspection on the internet. It can be found by going to audubon.org. Although the Watch List has compiled information about all endangered species of birds within the Commission's jurisdiction, providing data on dozens of species, the Watch List further separates its list into two levels, Red and Yellow. The Red level indicates that the species of bird is deemed Threatened or Near-threatened by Birdlife International or of Extremely High Priority by Partners in Flight. This list includes and is

more extensive than the birds listed on the government's Endangered Species List. The birds given a Yellow designation are deemed to be of only Moderately High Priority by Partners in Flight. For the purpose of this study, we focused on the birds provided a Red designation by the Audubon Watch List. The entire list of birds on the Watch List is attached hereto as Supplement A.

2.1 Extinct/Near Extinct Species

Although the Audubon Society holds out hope that some species deemed to be extinct may still be found, this study will not dwell on those few species which are listed as extinct or near extinct (less than 50) on the Watch List. The extinct species identified include the Ivory-billed Woodpecker, Eskimo Curlew, Bachman's Warbler, and O'ahu 'Alauahio, all of which are listed as believed to be extinct. The near extinct include the Hawaiian Crow (pop. 2), 'O'u (pop. <50), Nakupu'u (pop. <50), Po'o-uli (pop. 3), and Puerto Rican Parrot (pop. 40). Although one might join with the Audubon's Society in its efforts to find and preserve each of these species, the extremely small number of each species makes their relevance to the instant study tenuous at best. No policy regarding the construction of communications towers in the future can revive an extinct species. And species which are quite near extinction might be brought back to greater numbers, but communication tower management will not play a role in that effort. Therefore, although each of these species are relevant to the interests of continued preservation of all species of birds, it is deemed improper to rest any analysis on this small group of unfortunate birds since such analysis would not forward the efforts of the Commission.

2.2 Threats

The Audubon Watch List provides information regarding the leading threats to each species on the list, both known and considered. Much deference to that information is given herein and where patterns arose, they are discussed below. When collisions with manmade objects are mentioned by the Watch List as a threat, it is reported herein. If no such information is reported, it is because the Audubon Watch List did not cite collisions as a threat to the continued population or repopulation of the species. Since the Watch List did cite collisions with utility lines as a threat to some species, we will mention (absent contrary information) that the species might also collide with communications towers.

2.3 Conservation Efforts

Of likely far greater importance to the continuation of each of these endangered or threatened species, over 80% of the birds listed on the Watch List are the beneficiary of some conservation effort. Usually these efforts involve the set aside or protection of necessary habitats for breeding. Millions of acres of protected forests, wetlands, coastal areas, and other locations have been created to provide to many a suitable environment for breeding or roosting purposes. The United States and local governments spend billions of dollars yearly in preserving these areas of conservancy, and the effect has been quite noticeable for some species, halting declining populations and, in some instances, causing a species to no longer be deemed threatened. There exists, therefore, an issue as to whether additional effort is necessary in the form of communications tower management, particularly when no management method has been shown to be effective in theory or

practice. Given the amount of resources presently employed to preserve and increase populations employing conservancy methods which are known to be beneficial in protecting bird species, should the Commission employ additional government resources to explore a threat which significance is unknown and unproven? A strong case can be made that the effort represented by this proceeding, however laudable, may result in the vast expenditure of public and private resources for the objective of achieving a negligible result, particularly if one compares the likely results with the results already being achieved by more direct means.

3.0 Endangered and Threatened Birds

When one reviews the Audubon Watch List and the data presented for each species listed thereon, you cannot avoid noting common causes for declining species populations. Certainly, the introduction of man into a species' environment when such introduction includes a reduction in habitat for that species is a common reason for endangerment. Additionally, many species due to the nature of their habitat, including the size of that habitat and their concurrent inability to adapt to a changing environment, are especially vulnerable. Pesticides and newly introduced diseases are also high on the list of causes for endangerment. What is rarely mentioned and usually as an aside is collision with manmade objects. Although the comments in this proceeding suggest that collisions are a significant cause of avian deaths, the Audubon Watch List does not assign a high priority to those instances in its treatment of endangered bird species. This slight treatment is justified. The major causes for endangerment and prevention of further declining population of endangered bird species appears to have little to do with communications tower construction.

Stated more clearly, the existence of communications towers appears to have little, if any, adverse biological significance to the species identified on the Watch List. This conclusion is not made with an intent to signal a position of advocacy in this proceeding, i.e. that the following information has been arranged in a manner that would intentionally support a particular hypothesis. Indeed, if the evidence shown herein even suggested a contrary conclusion, such evidence would be presented and weighed against any contrary elements. However, having read carefully all of the underlying data provided by the Audubon Society, which evidence was compiled in cooperation with leading environmental groups such as Partners in Flight and the American Bird Conservancy, no other conclusion is scientifically supportable. As a more specific illustration of that evidence, the following is respectfully presented.

3.1 Island Birds

A large group of the birds identified on the Watch List are those that breed on islands. Often an Island Bird is indigenous to only one island and its continued survival is dependent completely on the environment of that single island. If the island's ecology is changed in a manner that creates a substantial threat to the species, the species will go into immediate and sometimes irreversible decline. This is particularly true if the environment has been altered due to a substantial amount of development by man (e.g. Puerto Rico and Hawaii).

Some Island Bird populations thrived for many centuries in a single, secluded location. With an absence of any natural predator, colonies of birds could continue an undisturbed existence and the size of the colony would only be dependent on the reproduction rate of the bird species and the availability of food sources. But such an existence was a fragile one, awaiting the introduction of man[1], predator or disease to alter the fates of these species.

The introduction of man onto islands brings loss of habitat by clearing, agriculture and draining of wetlands. Man often introduces new predators onto islands such as rats, pigs, and cats. If the bird nests on the ground, these new predators will quickly and easily begin the process of devouring nestlings. Additionally, man can carry new diseases (often mosquito borne) that can infect large numbers of birds and the effect can be devastating when the population is contained in a highly limited area, like an island. Man also brings new plant species that can overwhelm necessary populations of plants necessary to a particular Island Bird's nesting habits, and man can inadvertently bring additional parasitic insects that will invade the nests of Island Birds.

Oil spills are also a grave threat to island birds, particularly birds that nest or feed on shores. Small coastal islands that were affected by the Exxon Valdez spill were breeding grounds for some of the species that are now listed as endangered. And though this incident is the best publicized, oil spills are not sufficiently rare as to not be deemed a general threat to all seabirds and shorebirds.

In view of the foregoing, it is illogical to assume that the introduction of communications towers is a significant factor in the perpetuation of these species. Most of the listed species breed on islands that have little or no population center, thus, there is little need for communications towers and the construction of same would be highly limited. Where substantial human population is present, the above cited threats so far outstrip any threat caused by the presence of towers as to make further consideration of the issue questionable. In fact, among the dozens of threatened or endangered Island Birds, only one species was found to be threatened by man's operation of facilities that were tower-like. The Bermuda Petrel's aerial courtship is deemed hampered by light pollution from the operation of an airport and a NASA tracking station. No other operation (not construction) of manmade facilities was listed as a threat to Island Birds, including communications towers.

This is particularly true when the subject species breeds on small, remote islands. Many of the Island Birds breed and depend on the environment present in the small, Hawaiian atoll island group, or those islands that lay off the shore of Alaska. Although these small, remote islands may have little human population, such lack of permanent human settlement has not rendered the islands immune from the effects of human visitation. Again, man in visiting the islands has irrevocably altered the fragile island ecology by introducing predators, disease, and oil spills. And if the affected species does

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[1] The effect on species by the introduction of man into the island environment refers to the introduction of any man, not just modern man. For example, the demise of the Black-capped Petrel on the Island of Martinique is attributed to the arrival of Pre-Columbian tribes.

not have the capacity to adapt to the changed environment, its numbers rapidly decrease. Indeed, a bird species' ability to avoid severe consequences over time is tied directly to the species' ability to adapt to a changing environment. The common element, therefore, in the endangerment of species of Island Birds is that their individual fates are tied to highly limited land areas that have been irrevocably changed by man, and the changes that have occurred which have rendered the species endangered or threatened do not specifically include communications towers.

3.2 Sea and Shore Birds

These species of birds find their nesting or feeding areas dependent upon the condition of shorelines and/or the conditions of oceanscapes. Many of the species nest in areas immediately along shorelines and then spend their lives living off the bounties of fish found in the oceans. Although not often dependent on areas as small as the environment required by Island Birds, the Sea and Shore Birds are still limited to given areas along the coasts and sometimes on islands for nesting. The most common threats to this category of birds are the development of shore areas, recreational uses of shore areas, oil spills, and deep sea fishing techniques.

As is well established, shore property, particularly oceanfront property, is the most coveted property for commercial development. One need only note the difference in prices for an oceanfront home versus one located a mile from the beach, and it is clear that the intrusion by commercial development has driven the desires of many to remain close to the sea. Shore birds which depend on undeveloped property for breeding have, thus, been threatened by continuous development in the construction of homes, condominiums, etc.

And even when a portion of the shore is not developed, it is common for that shoreline to have recreational purposes. Surfers, boaters, and even couples simply exploring the shoreline can easily disturb shore bird nesting areas. This is particularly true since many shore birds nest on the ground and, thus, the eggs are vulnerable to the unwary steps of all persons. That some shore birds nest on cliffs and hillsides allows for some protection from negligent hikers, but does nothing to save those birds from predators, usually feral cats. A single pack of hungry, feral cats can devastate an entire colony of nesting shore birds.

As noted above, many shore birds are fish eaters, and thus, will fly many miles out to sea to obtain their food source. Such habits make these Sea and Shore Birds vulnerable to being trapped in gill nets and long line fishing methods used by commercial fisherman. And, like Island Birds, Sea and Shore Birds are quite susceptible to the ravages caused by oil spills.

Among the many Sea and Shorebirds that populate the Audubon Watch List are three species that may be affected by the introduction of communications towers. It is believed that Black-vented Shearwaters (pop. 152,000), Newell's Shearwaters (pop. 84,000), and the Hawaiian Petrels (pop. 20,000) may be subject to collision with manmade objects. Although the Black-vented Shearwater is much more threatened by habitat destruction and feral predators, such as cats; incidents of collision due to what may be an attraction to light is noted. So, too, the Hawaiian Petrel, an island nester, is thought to be attracted to light but again, the far greater threat to this species is feral predators, such as cats and mongooses, and loss of habitat; and the same priorities of threats exist for the

Newell's Shearwater, another island nester. Since communications towers could, if lighted, add to the number of manmade objects into which these species might collide, one must note the possibility. However, beyond the possibility one must also consider that elimination of lighted towers would do little, if anything, to end the threat, since lights from all urban structures combine to create this comparatively low-priority threat.

The above fairly noted, one must balance this evidence against the overwhelming evidence of the myriad of threats to Sea and Shore Birds that are not related to light attraction. Loss of habitat due to development of all kinds is quite high on the list of threats to this group of species as are the hunting habits of cats, rats and mongooses. In fact, one could postulate the results of protecting each species from the predation from cats alone, and the effect would be enormous. Whereas, one could reasonable find a nearly one-to-one connection in habitat protection and reduction in predators, it would be impossible to predict any positive effect from elimination of communications towers. To even predict a positive result that would be biologically notable or noticeable is impossible, particularly if nothing is done to simultaneously protect these species from the greater, more obvious, threats to their population.

3.3 Victims of Brood Parasitism

Among the numbers of species on the Audubon Watch List is a group that is victimized by Cowbirds, which are the single species that engages in brood parasitism within the United States (the cuckoo also engages in these habits in Europe). Simply stated, Cowbirds will invade the nests of other birds, kick out or eat the eggs of the host bird (sometimes leaving a single egg of the host bird), and deposit its eggs in the nest of the host bird with the expectation that its young will be raised by the host bird. Many host birds will, indeed, feed the often stronger Cowbird young; but some host species will simply abandon their nests and any host eggs contained therein.

The threat of Cowbirds is in direct proportion to the number of Cowbirds within a victim's nesting area. The population of Cowbirds has steadily increased due to the increased land used for grazing by both cattle and deer. Since Cowbirds thrive in grazing areas and do not build their own nests, then many species have been threatened by the dual effect of loss of habitat by clearing for greater use of land by grazing animals, and the behavior of Cowbirds in those areas. For example, about 30% of the Golden-winged Warbler's nests are subject to brood parasitism by Cowbirds. And, Cowbird trapping has reduced parasitism rates from 70 to 3 percent for Kirtland Warblers, thus tripling the rate of warbler reproductive success.

This common threat to the species in this group is obvious and efforts have been taken to trap or destroy Cowbirds in some areas to assist in the repopulation of threatened species. These efforts have netted positive results, thus demonstrating that brood parasitism is a direct threat to these birds. But of even greater significance is the loss of habitat.

Among this group each species may blame its decline on loss of habitat for breeding. Whether it is urban sprawl, clearing for agriculture, management of rivers, destruction of old growth forests, or increased use of land for grazing, these birds suffer a similar fate, a threat to their reproductive success. Even when some species have attempted to adapt to the changing environment, the adaptation has not been successful.

For example, one species, the Golden-Cheeked Warbler, was unable to employ suburban locations for nesting because it was subject to deadly attack from Blue Jays.

None of the bird species in this group was noted to be attracted to light or subject to collision with manmade objects. Either the Audubon Watch List neglected to note such threats to these species or, more likely, such a threat was so minor that it was simply unworthy of note. The Audubon Watch List noted loss of habitat, brood parasitism, pesticides, cats, weather, flood control projects, firewood cutting, fire, and introduction of alien vegetation; but no where is there mention of avian collision as a threat to any of these species. Although anecdotal evidence exists, e.g. a single Kirtland Warbler was found dead at a tower site, that some of these species may occasionally collide with communications towers, the data from the Audubon Watch List suggests that the entities which compiled the extensive data for the List did not consider avian collision to be a significant or even worthy of mention. The Commission should not draw a different conclusion.

3.4 The Remaining Endangered and Threatened Species

After noting the commonality of threats of the foregoing groups of species, one is left with the remaining species and what, according to the Audubon Watch List, are the reasons for each species population decline. Among the remaining species, the Watch List states again and again and again that loss of habitat is the common reason for each species' decline. For examples, the Mountain Plover is suffering from changes in the prairie lands, including reduced prairie dog populations; suppression of grassland fires affects the habitat for the McCown Longsphur; the Bendire's Thrasher is thought to be suffering from the harvesting of Joshua trees and yuccas; Sudden Oak Death fungal disease is threatening the habitat of the Nuttall's Woodpecker; and loss of sycamore trees in breeding areas of the Arizona Woodpecker has disturbed repopulation efforts. For each and every remaining species on the Watch List, disturbance of habitat is the main, if not the only, significant reason for each species' problems with reproduction.

Often the loss of habitat is directly tied to man's efforts in fire suppression. A number of species require that grasslands or forest undergrowth be periodically burned by natural, uncontrolled fires, to create the proper habitat for breeding. Although recently ecologists have been contemplating the benefits versus costs of allowing natural fires to be allowed to burn, rather than suppressed; the only significant fact for the purpose of this proceeding is that past efforts at fire suppression have had a negative effect on the breeding habits of numerous bird species.

Also among the remaining endangered and threatened species, one may note those birds that are greatly threatened by other birds. Nestlings of the Gunnison Sage-Grouse are preyed upon by Common Ravens and Black-billed Magpies; the Red-Cockaded Woodpecker's eggs are often eaten by Red-bellied and Red-headed Woodpeckers, and this species is often attacked by Screech Owls, and American Kestrals; the Black Rail is prey to Blue Herons, Great Egrets, and Short-eared Owls; and the much publicized Spotted Owl is threatened by avian predators such as Northern Goshawks, Great Horned Owls and other, larger raptors. The implication of this natural order is obvious. As the population of predator birds increases, it is expected that the populations of prey birds will

be decreased. So, what is the course in trying to preserve endangered birds threatened by other birds, such as predators and Cowbirds?

As one more carefully studies the individual habits of and threats to endangered and threatened species of birds, one cannot avoid confronting a kind of ecological ethical conundrum. To save one species of bird, one might suppress forest fires or let them burn, depending on the needs of a given species. Some birds prefer old growth forests, while others do better with new growth trees. By increasing protections for deer, one increases the amount of grazing land and, thus, endangers some bird species. When the U.S. Corps of Engineers devises means of controlling the devastation caused by flooding, those same projects can alter bird habitats and result in loss of species. Pesticides might be quite effective for eliminating harmful insects, including those that carry malaria and West Nile disease, but the byproduct could be the destruction of bird colonies. And among the issues being studied is avian collisions with communications towers and the balancing of the significance of the threat to bird species, versus the real advantages of bringing the benefits of wireless communications to millions of Americans.

This issue is not so simple as denouncing the threat to the Thick-billed Parrot, the Red-Crowned Parrot, and the Green Parakeet caused by people trapping each to be resold as pets. The Nation's economy and the quality of life will not be lessened by outlawing such practices and simultaneously saving a natural species. However, it is significant to note that among the remaining list of endangered and threatened bird species, only three were found to be threatened by collisions with manmade objects; the Whooping Crane, the Spotted Owl and the California Condor. Spotted Owls sometimes collide with motor vehicles, California Condors and Whooping Cranes [2] have been known to collide with power lines. Therefore, among the dozens of birds listed as endangered or seriously threatened as reported by the Audubon Watch List, only six birds were identified as threatened by collision with manmade objects, the aforementioned threes species and the three earlier mentioned Sea and Shorebirds discussed. Said another way, of the more than 100 species of birds listed on the Audubon Watch List as endangered or highly threatened, the List only mentions collision six times in its enumeration of the copious threats to all of the species of birds. And no where does the Audubon Watch List state that any of these birds is threatened by the construction and operation of communications towers.

4.0 Feral Cats And Other Predators

Because the nature of environmental groups is to preserve living creatures, the effects of feral cats on bird populations is often treated delicately. Yet, again and again the Audubon Watch List states that one of the greatest threats to endangered and threatened bird species is the increasing population of feral cats. These cats breed rapidly and are present in all corners of the United States and its islands. Their existence is one of the

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[2] A greater threat to the Whooping Crane is the fact that they will migrate in flocks which include Sand Hill Cranes. The USFWS allows for the hunting of Sand Hill Cranes, thus, it can be assumed that the errant shot from a hunter's shotgun blast is a much greater threat to Whooping Cranes than, say, a communications tower.

greatest threats to all bird populations. After a few months following birth, feral cats cannot be domesticated even if one were inclined to find homes for the over 50 million of them that are estimated to be roaming in cities, towns and rural areas of all kinds.

The American Bird Conservancy has suggested that feral cats be found and removed to shelters. The American Bird Conservancy is fully aware that upon arriving at shelters, feral cats are routinely destroyed. Thus, to save the bird population, the ABC advocates (implicitly and never directly) that cats be killed, if possible, by the millions. As one might expect, there are contrary ideas by groups that have been formed to save and support feral cats in America. For a glimpse into this debate between cat and bird lovers, read, *U.S. Faces Growing Feral Cat Problem*, National Geographic News, September 7, 2004.[3] However, what this debate reveals for the purpose of the instant discussion is that even among the environmental groups there is great debate on the means of preserving bird species. It further reveals that compared to the actions of feral cats, the construction and operation of communications towers is of meaningless concern.

If the underlying issue of this proceeding is to determine, among other things, whether any negative and biologically significant event can be attributed to the construction and operation of communications towers, then the alleged threat of communications towers must necessarily be compared and assessed in relation to all other threats to those birds. There does not appear to be any report or study that has attempted to quantify, and therefore place in perspective, the alleged threat of tower operation. Having reviewed hundreds of reports by dozens of environmental groups, government agencies and universities, one conclusion is extremely obvious, the threat to birds from tower operation is infinitely smaller than nearly every other known or mentioned threat. Whereas a single bird might suffer, say, a 1 in 4 chance of being eaten by a predator, be it rat, cat, mongoose, raptor, snake, insects (ants eat eggs), or pig; the likelihood that the same bird will be killed by avian collision with a communications tower is more like 1 in one hundred thousand. Between only feral cats and Norway rats, there are over 250 million mammals on the prowl for eggs, hatchlings, and adult birds.

If the Commission is to consider the adoption of policy, such consideration must be coupled with the knowledge that whatever the Commission might do in an effort to contribute to the safety of migratory birds, its efforts will not be noticeable as compared to other efforts, such as reduction in the feral cat and rat population. Indeed, destruction of Cowbirds alone has been found to create significant advantages for the Kirtland Warbler and subspecies of Vireos, whose populations have increased within an environment of increased tower construction.

5.0 Conclusion

Nothing contained in the literature of the Audubon Watch List or the dozens of other sources available indicate that there exists anything more than a rumor regarding the significance of communications towers to the continued repopulation of endangered or

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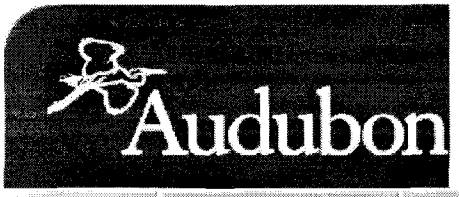
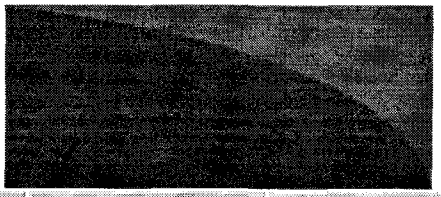
[3] See, also, Domestic Cat Predation in California, Florida and Hawaii, found at abcbirds.org; Hawaii Animal Imports, found at american.edu, which further discusses the devastation on bird populations from feral pigs, rats, and dogs.

threatened species of birds. When one examines carefully each species, one at a time, it is impossible to conclude that communications towers pose any significant biological threat to protected species of birds. The fact is, the literature and evidence simply do not provide any evidence for any conclusion of biological significance. Based on this clear and convincing data, we recommend that the Commission not adopt any policy or rule which would restrict or reconfigure the construction or operation of communications towers, as such action would be without evidentiary support.

SUPPLEMENT A

Audubon Watch List





The 2002 Audubon WatchList

You can view information about the ecology, identification, and conservation of member of the WatchList as well as the threats to each of these species. Species grouped by family and listed alphabetically within each group. To select a specie on the family from the options below. The color before the species name will ind species is on the red list or yellow list. A printable list of WatchList species is als in taxonomic order within geographic region (requires Adobe Acrobat Reader v4 higher).

Seabirds	Shorebirds
Herons, Egrets, and Allies	Pigeons and Doves
Waterfowl	Parrots
Birds of Prey	Owls and Nightjars
Gallinaceous Birds	Swifts and Hummingbirds
Rails	Woodpeckers
Cranes	Flycatchers and Songbirds

Audubon's WatchList Species by Family

Seabirds

- Ashy Storm-Petrel
- Bermuda Petrel
- Black-capped Petrel
- Black-footed Albatross
- Black-vented Shearwater
- Craveri's Murrelet
- Hawaiian Petrel
- Kittlitz's Murrelet
- Marbled Murrelet
- Newell's Shearwater
- Pink-footed Shearwater
- Red-faced Cormorant

- Short-tailed Albatross
- Tristram's Storm-Petrel
- Xantus's Murrelet
- Black Storm-Petrel
- Buller's Shearwater
- Laysan Albatross
- Least Storm-Petrel
- Whiskered Auklet

Herons, Egrets, and Allies

- California Condor
- Yellow-billed Loon
- Reddish Egret

Waterfowl

- Emperor Goose
- Hawaiian Duck
- Hawaiian Goose
- Laysan Duck
- Spectacled Eider
- Steller's Eider
- West Indian Whistling-Duck
- American Black Duck
- Brant
- Mottled Duck
- Trumpeter Swan

Birds of Prey

- Hawaiian Hawk
- Ferruginous Hawk
- Harris's Hawk
- Swainson's Hawk

Gallinaceous Birds

- Greater Prairie-Chicken
- Gunnison Sage-Grouse
- Lesser Prairie-Chicken
- Blue Grouse
- Greater Sage-Grouse
- Montezuma Quail
- Mountain Quail

Rails

- Black Rail
- Caribbean Coot
- Hawaiian Coot
- Yellow Rail

Cranes

- Whooping Crane

Shorebirds

- Bristle-thighed Curlew
- Buff-breasted Sandpiper
- Elegant Tern
- Eskimo Curlew
- Heermann's Gull
- Long-billed Curlew
- Mountain Plover
- Piping Plover
- Red-legged Kittiwake
- Snowy Plover
- American Golden-Plover
- American Oystercatcher
- American Woodcock
- Bar-tailed Godwit
- Black Oystercatcher

- Black Turnstone
- Hudsonian Godwit
- Marbled Godwit
- Pacific Golden-Plover
- Purple Sandpiper
- Red Knot
- Rock Sandpiper
- Short-billed Dowitcher
- Surfbird
- Whimbrel
- Wilson's Phalarope
- Wilson's Plover
- Yellow-footed Gull

Pigeons and Doves

- Plain Pigeon
- Band-tailed Pigeon
- White-crowned Pigeon

Parrots

- Green Parakeet
- Puerto Rican Parrot
- Red-crowned Parrot
- Thick-billed Parrot

Owls and Nightjars

- Puerto Rican Nightjar
- Spotted Owl
- Antillean Nighthawk
- Elf Owl
- Flammulated Owl
- Short-eared Owl
- Whiskered Screech-Owl

Swifts and Hummingbirds

- Allen's Hummingbird
- Black Swift
- Buff-bellied Hummingbird
- Calliope Hummingbird
- Costa's Hummingbird
- Lucifer Hummingbird
- Rufous Hummingbird
- White-throated Swift

Woodpeckers

- Arizona Woodpecker
- Ivory-billed Woodpecker
- Nuttall's Woodpecker
- Red-cockaded Woodpecker
- Gilded Flicker
- Lewis's Woodpecker
- Red-headed Woodpecker
- White-headed Woodpecker

Flycatchers and Songbirds

- Akekee
- Akepa
- Akiapolaau
- Akikiki
- Akohekohe
- Anianiau
- Audubon's Oriole
- Bachman's Sparrow
- Bachman's Warbler
- Baird's Sparrow
- Bell's Vireo
- Bendire's Thrasher
- Bicknell's Thrush
- Black-capped Vireo

- Brown-capped Rosy-Finch
- California Gnatcatcher
- Cerulean Warbler
- Colima Warbler
- Elepaio
- Elfin-woods Warbler
- Five-striped Sparrow
- Florida Scrub-Jay
- Golden-cheeked Warbler
- Golden-winged Warbler
- Hawaii Creeper
- Hawaiian Crow
- Henslow's Sparrow
- Iiwi
- Island Scrub-Jay
- Kamao
- Kauai Amakihi
- Kirtland's Warbler
- Lawrence's Goldfinch
- Laysan Finch
- Maui Alauahio
- Maui Parrotbill
- McCown's Longspur
- McKay's Bunting
- Millerbird
- Nelson's Sharp-tailed Sparrow
- Nihoa Finch
- Nukupuu
- Oahu Alauahio
- Oahu Amakihi
- Olomao
- Omao
- Ou
- Palila
- Poo-uli
- Puaiohi
- Rufous-winged Sparrow
- Saltmarsh Sharp-tailed Sparrow
- Sprague's Pipit

- Swainson's Warbler
- Yellow-shouldered Blackbird
- Abert's Towhee
- Bay-breasted Warbler
- Black Rosy-Finch
- Black-capped Gnatcatcher
- Black-chinned Sparrow
- Blue-winged Warbler
- Botteri's Sparrow
- Brewer's Sparrow
- Brown-headed Nuthatch
- California Thrasher
- Canada Warbler
- Curve-billed Thrasher
- Dickcissel
- Grace's Warbler
- Gray Vireo
- Harris's Sparrow
- Hermit Warbler
- Kentucky Warbler
- Le Conte's Thrasher
- Lucy's Warbler
- Oak Titmouse
- Olive-sided Flycatcher
- Painted Bunting
- Pinyon Jay
- Prairie Warbler
- Prothonotary Warbler
- Red-faced Warbler
- Rusty Blackbird
- Seaside Sparrow
- Tamaulipas Crow
- Thick-billed Kingbird
- Tricolored Blackbird
- Virginia's Warbler
- Willow Flycatcher
- Wood Thrush
- Worm-eating Warbler
- Wrentit